



This is an official
CDC Health Advisory

Distributed via Health Alert Network
December 27, 2013, 10:00 EST
10308-CAD-12-27-2013-pH1N1

Notice to Clinicians: Early Reports of pH1N1-Associated Illnesses for the 2013-14 Influenza Season

Summary

From November through December 2013, CDC has received a number of reports of severe respiratory illness among young and middle-aged adults, many of whom were infected with influenza A (H1N1) pdm09 (pH1N1) virus. Multiple pH1N1-associated hospitalizations, including many requiring intensive care unit (ICU) admission, and some fatalities have been reported. The pH1N1 virus that emerged in 2009 caused more illness in children and young adults, compared to older adults, although severe illness was seen in all age groups. While it is not possible to predict which influenza viruses will predominate during the entire 2013-14 influenza season, pH1N1 has been the predominant circulating virus so far. **For the 2013-14 season, if pH1N1 virus continues to circulate widely, illness that disproportionately affects young and middle-aged adults may occur.**

Seasonal influenza contributes to substantial morbidity and mortality each year in the United States. In the 2012-13 influenza season, CDC estimates that there were approximately 380,000 influenza-associated hospitalizations [1]. Although influenza activity nationally is currently at low levels, some areas of the United States are already experiencing high activity, and influenza activity is expected to increase during the next few weeks.

The spectrum of illness observed thus far in the 2013-14 season has ranged from mild to severe and is consistent with that of other influenza seasons. While CDC has not detected any significant changes in pH1N1 viruses that would suggest increased virulence or transmissibility, the agency is continuing to monitor for antigenic and genetic changes in circulating viruses, as well as watching morbidity and mortality surveillance systems that might indicate increased severity from pH1N1 virus infection. In addition, CDC is actively collaborating with state and local health departments in investigation and control efforts.

CDC recommends annual influenza vaccination for everyone 6 months and older. Anyone who has not yet been vaccinated this season should get an influenza vaccine now. While annual vaccination is the best tool for prevention of influenza and its complications, **treatment with antiviral drugs (oral oseltamivir and inhaled zanamivir) is an important second line of defense for those who become ill to reduce morbidity and mortality. Antiviral treatment is recommended as early as possible for any patient with confirmed or suspected influenza who is hospitalized; has severe, complicated, or progressive illness; or is at higher risk for influenza complications.**

Background

The risk of severe disease and complications from influenza is higher among children younger than 5 years of age, adults aged 65 years and older, pregnant women, and those with underlying medical conditions. In most influenza seasons, the majority of influenza-associated hospitalizations and deaths are among adults aged 65 years and older [2, 3]. However, during the 2009 pandemic, pH1N1 caused more illness in children and young adults than in older adults [4]. This was likely due in part to protection in older adults provided by cross-reactive immunity to pH1N1 caused by prior infection with antigenically-

related viruses. The pandemic also was notable for reports of severe illness among pregnant women infected with pH1N1 and adverse neonatal outcomes [5].

Early observations from the 2013-14 influenza season indicate that some persons infected with pH1N1 virus have had severe illness. While most of these people with severe illness have had risk factors for influenza-associated complications, including pregnancy and morbid obesity, several have not. CDC recommends annual vaccination as the best tool for prevention. However, for persons with suspected or confirmed influenza, treatment with neuraminidase inhibitor antiviral drugs (oral oseltamivir and inhaled zanamivir) can be an important component of clinical care. Evidence from past influenza seasons and the 2009 H1N1 pandemic has consistently shown that treatment with antiviral medications reduces severe outcomes of influenza when initiated as soon as possible after illness onset. Clinical trials and observational data show that early antiviral treatment may (1) shorten the duration of fever and illness symptoms, (2) reduce the risk of complications from influenza (e.g., otitis media in young children, pneumonia, respiratory failure and death), and (3) shorten the duration of hospitalization.

Recommendations for Healthcare Providers

- Clinicians should encourage all patients 6 months of age and older who have not yet received an influenza vaccine this season to be vaccinated against influenza. There are several flu vaccine options for the 2013-2014 flu season (see http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6207a1.htm?s_cid=rr6207a1_w#Tab1), and all available vaccine formulations this season contain a pH1N1 component; CDC does not recommend one flu vaccine formulation over another.
- Clinicians should encourage all persons with influenza-like illness who are at high risk for influenza complications (see list below) to seek care promptly to determine if treatment with influenza antiviral medications is warranted

Summary of CDC Recommendations for Influenza Antiviral Medications for Health Care Providers for the 2013-2014 Influenza Season

- CDC guidelines for influenza antiviral use during 2013-14 season are the same as during prior seasons. Clinical benefit is greatest when antiviral treatment is administered early. When indicated, antiviral treatment should be started as soon as possible after illness onset, ideally within 48 hours of symptom onset. However, antiviral treatment might still be beneficial in patients with severe, complicated, or progressive illness, and in hospitalized patients and in some outpatients when started after 48 hours of illness onset, as indicated by clinical and observational studies.
- Antiviral treatment is recommended as early as possible for any patient with confirmed or suspected influenza who
 - is hospitalized;
 - has severe, complicated, or progressive illness; or
 - is at higher risk for influenza complications. This list includes:
 - children aged younger than 2 years;
 - adults aged 65 years and older;
 - persons with chronic pulmonary (including asthma), cardiovascular (except hypertension alone), renal, hepatic, hematological (including sickle cell disease), metabolic disorders (including diabetes mellitus), or neurologic and neurodevelopment conditions (including disorders of the brain, spinal cord, peripheral nerve, and muscle such as cerebral palsy, epilepsy [seizure disorders], stroke, intellectual disability [mental retardation], moderate to severe developmental delay, muscular dystrophy, or spinal cord injury);
 - persons with immunosuppression, including that caused by medications or by HIV infection;

- women who are pregnant or postpartum (within 2 weeks after delivery);
 - persons aged younger than 19 years who are receiving long-term aspirin therapy;
 - American Indians/Alaska Natives;
 - persons who are morbidly obese (i.e., body-mass index is equal to or greater than 40); and
 - residents of nursing homes and other chronic-care facilities.
- Antiviral treatment can also be considered for suspected or confirmed influenza in previously healthy, symptomatic outpatients not at high risk on the basis of clinical judgment, especially if treatment can be initiated within 48 hours of illness onset.
 - Clinical judgment, on the basis of the patient's disease severity and progression, age, underlying medical conditions, likelihood of influenza, and time since onset of symptoms, is important when making antiviral treatment decisions for outpatients.
 - Decisions about starting antiviral treatment should not wait for laboratory confirmation of influenza.
 - Rapid influenza diagnostic tests (RIDTs) have [limited sensitivities and predictive values](#); negative results of RIDTs do not exclude influenza virus infection in patients with signs and symptoms suggestive of influenza. Therefore, antiviral treatment should not be withheld from patients with suspected influenza, even if they test negative.
 - While influenza vaccination is the best way to prevent influenza, a history of influenza vaccination does not rule out influenza virus infection in an ill patient with clinical signs and symptoms compatible with influenza.

Resources for Additional Information

- Summary of Weekly U.S. Influenza Surveillance Report (<http://www.cdc.gov/flu/weekly/summary.htm>)
- People at High Risk of Developing Flu–Related Complications (http://www.cdc.gov/flu/about/disease/high_risk.htm)
- Clinical Signs and Symptoms of Influenza (<http://www.cdc.gov/flu/professionals/acip/clinical.htm>)
- ACIP Recommendations for the Prevention and Control of Influenza with Vaccines, United States, 2013-14: Summary for Clinicians (<http://www.cdc.gov/flu/professionals/acip/2013-summary-recommendations.htm>)
- Influenza Antiviral Medications: Summary for Clinicians (<http://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm>)
- Guidance for Clinicians on the Use of Rapid Influenza Diagnostic Tests (http://www.cdc.gov/flu/professionals/diagnosis/clinician_guidance_ridt.htm)
- Prevention Strategies for Seasonal Influenza in Healthcare Settings (<http://www.cdc.gov/flu/professionals/infectioncontrol/healthcaresettings.htm>)
- Guidance for the Prevention and Control of Influenza in the Peri- and Postpartum Settings (<http://www.cdc.gov/flu/professionals/infectioncontrol/peri-post-settings.htm>)
- Interim Guidance for Influenza Outbreak Management in Long-Term Care Facilities (<http://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm>)

- Patient Education: Influenza Brochures, Fact Sheets, and Posters (<http://www.cdc.gov/flu/freeresources/index.htm>)

Endnotes

1. Centers for Disease, C. and Prevention, *Estimated influenza illnesses and hospitalizations averted by influenza vaccination - United States, 2012-13 influenza season*. MMWR Morb Mortal Wkly Rep, 2013. 62(49): p. 997-1000. (http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6249a2.htm?s_cid=mm6249a2_w)
2. Mullooly, J.P., et al., *Influenza- and RSV-associated hospitalizations among adults*. Vaccine, 2007. 25(5): p. 846-55. (<http://www.ncbi.nlm.nih.gov/pubmed/21342884>)
3. Centers for Disease, C. and Prevention, *Estimates of deaths associated with seasonal influenza --- United States, 1976-2007*. MMWR Morb Mortal Wkly Rep, 2010. 59(33): p. 1057-62. (<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5933a1.htm>)
4. Jhung, M.A., et al., *Epidemiology of 2009 pandemic influenza A (H1N1) in the United States*. Clin Infect Dis, 2011. 52(5): p. S13-26. (<http://www.ncbi.nlm.nih.gov/pubmed/21342884>)
5. Creanga, A.A., et al., *Severity of 2009 pandemic influenza A (H1N1) virus infection in pregnant women*. Obstet Gynecol, 2010. 115(4): p. 717-26. (<http://www.ncbi.nlm.nih.gov/pubmed/20308830>)

DHEC contact information for reportable diseases and reporting requirements

Reporting of pH1N1 is consistent with South Carolina Law requiring the reporting of diseases and conditions to your state or local public health department. (State Law # 44-29-10 and Regulation # 61-20) as per the DHEC 2013 List of Reportable Conditions available at: <http://www.scdhec.gov/health/disease/reportables.htm>

Federal HIPAA legislation allows disclosure of protected health information, without consent of the individual, to public health authorities to collect and receive such information for the purpose of preventing or controlling disease. (HIPAA 45 CFR §164.512).

Regional Public Health Offices – 2013

Mail or call reports to the Epidemiology Office in each Public Health Region.

LOW COUNTRY PUBLIC HEALTH REGION

Berkeley, Charleston, Dorchester
4050 Bridge View Drive, Suite 600
N. Charleston, SC 29405
Phone: (843) 953-0043
Fax: (843) 953-0051
Nights / Weekends: (843) 441-1091

Beaufort, Colleton, Hampton, Jasper
219 S. Lemacks Street
Walterboro, SC 29488
Phone: (843) 549-1516
Fax: (843) 549-6845
Nights / Weekends: (843) 441-1091

Allendale, Bamberg, Calhoun, Orangeburg
PO Box 1126
1550 Carolina Avenue
Orangeburg, SC 29116
Phone: (803) 268-5866
Fax: (843) 549-6845
Nights / Weekends: (843) 441-1091

MIDLANDS PUBLIC HEALTH REGION

Kershaw, Lexington, Newberry, Richland
2000 Hampton Street
Columbia, SC 29204
Phone: (803) 576-2749
Fax: (803) 576-2993
Nights / Weekends: (888) 554-9915

Chester, Fairfield, Lancaster, York
PO Box 817
1833 Pageland Highway
Lancaster, SC 29720
Phone: (803) 286-9948
Fax: (803) 286-5418
Nights / Weekends: (888) 554-9915

Aiken, Barnwell, Edgefield, Saluda
222 Beaufort Street, NE
Aiken, SC 29801
Phone: (803) 642-1618
Fax: (803) 643-8386
Nights / Weekends: (888) 554-9915

PEE DEE PUBLIC HEALTH REGION

Chesterfield, Darlington, Dillon, Florence, Marlboro, Marion
145 E. Cheves Street
Florence, SC 29506
Phone: (843) 661-4830
Fax: (843) 661-4859
Nights / Weekends: (843) 915-8845

Clarendon, Lee, Sumter
PO Box 1628
105 North Magnolia Street
Sumter, SC 29150
Phone: (803) 773-5511
Fax: (803) 775-9941
Nights/Weekends: (843) 915-8845

Georgetown, Horry, Williamsburg
1931 Industrial Park Road
Conway, SC 29526-5482
Phone: (843) 915-8804
Fax: (843) 365-0085
Nights/Weekends: (843) 915-8845

UPSTATE PUBLIC HEALTH REGION

Anderson, Oconee
220 McGee Road
Anderson, SC 29625
Phone: (864) 260-5801
Fax: (864) 260-5623
Nights / Weekends: (866) 298-4442

Abbeville, Greenwood, Laurens, McCormick
1736 S. Main Street
Greenwood, SC 29646
Phone: (864) 227-5947
Fax: (864) 942-3690
Nights / Weekends: (866) 298-4442

Cherokee, Greenville, Pickens
PO Box 2507
200 University Ridge
Greenville, SC 29602-2507
Phone: (864) 372-3133
Fax: (864) 282-4373
Nights / Weekends: (866) 298-4442

UPSTATE PUBLIC HEALTH REGION (continued)

Spartanburg, Union
PO Box 2507
200 University Ridge
Greenville, SC 29602-2507
Phone: (864) 372-3133
Fax: (864) 282-4373
Nights / Weekends: (866) 298-4442

**DHEC Bureau of Disease Control
Division of Acute Disease Epidemiology**
1751 Calhoun Street
Box 101106
Columbia, SC 29211
Phone: (803) 898-0861
Fax: (803) 898-0897
Nights / Weekends: 1-888-847-0902



www.scdhec.gov

Categories of Health Alert messages:

Health Alert	Conveys the highest level of importance; warrants immediate action or attention.
Health Advisory	Provides important information for a specific incident or situation; may not require immediate action.
Health Update	Provides updated information regarding an incident or situation; unlikely to require immediate action.